

WHAT EVER HAPPENED TO THE WAR ON CANCER?

BY DANIEL S. GREENBERG



At the White House, Hammer got the kiss-off from Reagan.

At first overhyped and now underfunded, America's blitzkrieg to find a cure is meeting stiff resistance

Among the reprieves from suffering that Americans have sought in recent years, none has fallen from political grace so quietly and enigmatically as the "war" on cancer that was declared in 1971. The state of cancer research and treatment briefly regained mass attention last summer, when President Reagan underwent surgery to remove a cancerous polyp from his colon, and again in January, when three other polyps, this time benign, were removed. But not even the affliction of a president could return cancer to the high place it once occupied on the political agenda.

What happened? The "war" was launched amid misunderstandings and misrepresentations of the power of science and its ability to find a cure for cancer. It was the creation of a diverse group of people who, for reasons that were often in conflict, had rallied to the cause of stamping out this disease. Their number included medical and scientific machiavellians and saints, rich samaritans, a few levelheaded but many stampeding legislators, and a nervous Nixon White House staff that feared the presidential potential of Senator Edward Kennedy (D-Mass.), who had made health his issue.

In 1970, when cancer killed 330,000 Americans, Congress demonstrated the irrational streak in cancer politics by unanimously resolving that the disease should be eliminated "by 1976 as an appropriate commemoration of the two-hundredth anniversary of the independence of our country." In 1976, because of an aging

population and the steady increase in the incidence of tobacco-induced lung cancer, deaths from cancer had risen to 375,000. In 1985, as the population continued to grow older, they totaled an estimated 462,000.

It has been only over the past few years that the National Cancer Program, as the war is formally titled, has been infused with good managerial sense. And with that has come a dedication to high scientific standards and a focusing on the study and promotion of cancer prevention, rather than on the often unattainable goal of saving those who have been stricken.

Nonetheless, by the measures that count in Washington, political enthusiasm and the money that comes from it, cancer research has been deprived during the Ford, Carter, and Reagan presidencies. Nixon's motives were debatable, but the record shows that he was the first and last president to give cancer research personal attention and budgetary backing.

Today the National Cancer Program is budgeted by the deficit-haunted federal government at \$1.2 billion for 1986. That's the same amount as in the mid-1970s, if inflation is taken into account. Suffering and death are occurring—and will continue to occur—

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for lack of money to expand the use of new treatments or exploit promising scientific leads. Why? To find out, one must look into the politics of cancer, which is often as difficult to fathom as the disease itself.

Starting at the periphery, let's consider the peregrinations of a legendary figure in the high command for the war on cancer.

C

HAIRMAN HAMMER

Last year, Armand Hammer, the 87-year-old oil multimillionaire, physician by training, confidant of Soviet leaders all the way back to Lenin, and Ronald Reagan-appointed chairman of the President's Cancer Panel, presided in Los Angeles at the award of the third annual Armand Hammer \$100,000 prize for cancer research.

During the proceedings he was taken aside by the director of the National Cancer Institute (NCI), Vincent DeVita, a 50-year-old oncologist and career civil servant, who made a considerable medical reputation with his pioneering research on Hodgkin's disease. DeVita often confers with Hammer, who, as chairman of the three-member cancer panel, is supposed to function as NCI's red-tape-cutting emissary to the President. Despite the gulf of age and wealth, DeVita and Hammer share a passionate interest in fighting and reversing cancer.

"Dr. DeVita came over very excited, more so than I've ever seen him," says Hammer. "He's usually very placid, unruffled. He said, 'I've just got some great news.' " It concerned a dramatic and successful colon cancer treatment conducted on a dying patient by Steven Rosenberg, an NCI surgeon and scientist who assisted in the surgery on Reagan. Rosenberg had achieved astonishing results with a combination of so-called activated killer cells and an experimental drug, interleukin-2.

"The very next morning I told my pilot to get the plane ready to take off, and I flew to Washington," says Hammer. The aircraft, *Oxy 1*, a Boeing 727 originally configured for an oil sheik—it came complete with a master bedroom and bath, a guest room, and an office—logs tens of thousands of miles a year as Hammer engages in his worldwide errands of commerce and philanthropy. It's one of the few private airplanes permitted in the Soviet Union's well guarded skies.

Upon arriving in Washington, Hammer sped to NCI, the largest component of the sprawling National Institutes of Health (NIH), in Bethesda, Md. He spent the rest of the day there with the startled Rosenberg, who was still cautiously collecting data for a paper on the therapy. Accompanying Hammer on that visit was one of several volunteers he has enlisted in the cause, movie producer Sherry Lansing, former president of 20th Century-Fox, whose mother had recently died of cancer. Though not trained in any medical field, Lansing serves as a scout for Hammer, visiting lab-

oratories and hospitals to search out and alert him to interesting developments.

In recounting his discussion with Rosenberg, Hammer says, "I said to him, 'Why can't we go faster?' He said, 'I don't have the means. I'm restricted by the amount of money I've got.' I said, 'How much do you need?' I thought he'd say a couple of million dollars. He said, 'With \$100,000, I could double this project. I could put on more scientists to help.' "

Rosenberg gently suggests that Hammer has overdramatized both the encounter and the current status of the treatment on which he's working. He stresses that, though any researcher can usually make good use of more money, NCI has generously supported his work and was already expanding it when Hammer arrived. He also points out that the treatment he's investigating is in the very early stages of development, and that the results achieved so far may not be broadly applicable.

Never mind. Hammer's impulse on the spot was to write a \$100,000 check made out to Steven A. Rosenberg. But in conforming to government regulations stipulating that contributions for work at NCI may not go to individuals, Hammer made the check payable to the institute. However, he says he told DeVita, "It's going to Dr. Rosenberg." Excited by the promise of interleukin-2 and other new cancer treatments, Hammer subsequently donated \$100,000 to a scientist at the UCLA Center for Health Sciences and \$200,000 to the Memorial Sloan-Kettering Cancer Center in New York. Half that \$200,000 was earmarked for projects that had been spotted by Lansing.

Although Hammer wanted to carry the good news of Rosenberg's work to Reagan, his wish went unfulfilled. He may have been the first American to engage in, as he puts it, a "one on one" with Soviet leader Mikhail Gorbachev (90 minutes on June 17, 1985), but he has never been allowed more than quick social conversations with Reagan in four dutiful years as chairman of the President's cancer panel.

White House hardliners have long wondered why Reagan appointed this idiosyncratic tycoon. The son of a member of the American Communist Labor Party, Hammer, who's fluent in Russian, was given a luxurious Moscow apartment by the Soviets in gratitude for the multibillion-dollar deals struck between his Occidental Petroleum Co. and sagging Soviet industry. Moreover, Hammer had pleaded guilty in 1976 to three misdemeanor charges, involving \$54,000 in laundered contributions to the Nixon re-election campaign. And he has no claims on Reagan.



George Keyworth

The reasons behind Hammer's appointment are simple: the cancer panel is a part-time body, inconspicuous, and without political power. Hammer, a dropout doctor who for a good many years had applied his money and support to cancer research institutions, had been recommended to Reagan by a mutual California friend. And DeVita, who's well regarded in the White House—he's a Carter appointee whom Reagan reappointed—endorsed Hammer, seeing him as a figure who might be able to draw presidential support to the cause of fighting cancer.

Hammer's failure to get to Reagan was founded not only on skep-

ticism about him among White House staffers but also on his declaration that he'd bring up more than cancer in any meeting he might have with the President. Trade, he sermonizes, is the key to peace, and the Reagan administration has raised many barriers to Soviet-American trade, including deals that Hammer would like to pursue.

Several months after that visit to Bethesda, Hammer saw a chance to reach Reagan. At the annual American Cancer Society Ball in Washington, he situated himself between Rosenberg and Reagan's science adviser, physicist George (Jay) Keyworth, who Hammer had been told would be his White House contact. Describing Rosenberg's success with the colon patient and a similarly far-gone melanoma case, Hammer asked Keyworth to take the news to the President.

Hammer recounts Keyworth's response with a deliberateness that suggests it was of historic significance: Keyworth told him that "if I had twenty patients and got the same results, then he'd go to the President."

It was a kiss-off. And it was repeated not very long thereafter when Hammer, having contributed \$100,000 to an endowment fund for the preservation of Ford's Theatre in Washington, was invited to a White House reception for the theater's benefactors. As he was being guided past the President in the carefully regulated reception line, Hammer managed to tell Reagan, "Great things are happening in cancer research." According to an aide to Hammer, the President replied, "Armand, I'll talk to Jay Keyworth."

Why can't Hammer, or for that matter DeVita, heat up the war on cancer? For the answer, we must go beyond the obvious factor of today's anti-deficit pressures and examine some recent and distant events in biomedical politics.

F

RIENDS AND CONVERTS

One evening last June, the high-ceilinged, marble-walled Caucus Room of the U.S. Senate, setting of the Watergate hearings and other political dramas, was serving as a banquet hall for a meeting of the Association of American Cancer Institutes, the umbrella organization for some 70 hospitals and research centers, large and small, that study and treat cancer—with orchestration and money provided by NCI.

Seated together at the head table were two guests of the association: DeVita and the evening's main speaker, Senator Orrin Hatch (R-Utah), chairman of the Labor and Human Resources Committee, which presides over legislation affecting NCI.

During his decade in the Senate, Hatch has, with rare exceptions, performed as the anti-spending conservative he promised the voters he'd be in unseating a liberal Democrat. One of the exceptions: the budget of the National Institutes of Health. To the despair of White House planners stretching back to the days of the Eisenhower administration, House and Senate members of all political



Dwight Eisenhower

persuasions are usually sweet on NIH.

Upon taking the rostrum, Hatch modestly acknowledged the association's resolution of praise for his support of medical research, particularly for his help in reversing budget chief David Stockman's efforts to reduce the biomedical-research program by 1,000 projects in 1986.

He then mentioned his gratitude to DeVita for attending several years ago to a frightening personal medical matter that happily had turned out well: "While showering one morning, I found a lump under my arm. I felt I was going to die. I called Vince, and he told me to come right out there." The lump was diagnosed as a harmless fatty deposit and was removed under local anaesthetic.

Hatch nodded appreciatively to DeVita, and went on: "There's a new odd couple on Capitol Hill: Orrin Hatch and Henry Waxman [the Democratic representative from California who chairs the NIH and NCI legislative subcommittee in the House]. You have to go pretty far to the left to get to the left of Henry," which is indeed true. But when it comes to NIH and disease research, Hatch emphatically declared, he and Waxman were comrades in arms.

Hatch's assessment of his place on the biomedical-political spectrum is endorsed by John Sherman, a former NIH deputy director who monitors congressional affairs for the medical school lobby, the Association of American Medical Colleges. "Hatch was new to the issues when he first came here," Sherman says, "but he's gotten educated, and he's actively negotiated with OMB [Office of Management and Budget] and the White House to help NIH." A good part of that education has been attended to by one of Hatch's important constituents, Chase Peterson, a physician who's president of the University of Utah and a former university vice president for health sciences. Says one Washington lobbyist, "Peterson has worked on Hatch."

That's not unusual among scientists whose friends rise to high places in Washington. And, in fact, NIH rarely encounters anything but affection in Washington politics. Nonetheless, it can't break out of the budget doldrums. Even its friends recognize and fear the volatility of biomedical politics, and they approach it gingerly.

T

HE MEDICAL TRIANGLE

In most governmental matters, the lines of power form a triangle that runs from the White House to the executive agencies to Capitol Hill. But for the past 35 years, the political lines of biomedical research have followed a route that steers clear of the White House. At one corner of the triangle are the highly organized lob-



Lobbyists never hesitate to bring a sick child before Congress.

bies for medical science in general and for particular diseases; from there, one leg of the triangle runs to Capitol Hill, the other to Bethesda.

The lobbies—cynically referred to in Washington as disease-of-the-month clubs—beat the drum against pain and suffering, and urge more money and jurisdiction for NIH, even beyond limits that the NIH bureaucracy deems manageable or the White House considers affordable. Never hesitating to bring a cancer-stricken child or a painfully gnarled arthritis victim to the hearing room, NIH's zealous friends in the health lobbies achieved spectacular budgetary triumphs in Congress throughout the 1950s and '60s.

When Eisenhower, who had been elected on a cost-cutting platform, became president in 1953, NIH had a budget of \$60 million, and consisted of a central administration plus seven institutes, for research on cancer, heart disease, dentistry, mental health, arthritis, allergies, and neurology. In his first budget, Eisenhower proposed a mere \$1.3 million increase for NIH. But, starting a process that would accelerate throughout Ike's two terms of office, Congress appropriated \$15 million more than the presidential request.

Eisenhower hinted at vetoes, but never risked his prestige against NIH's enthusiastic legislative backers. When he left office in 1961, the NIH budget stood at \$550 million, a tenfold increase in only eight years. The cancer portion of that booming total had soared from \$18 million to \$110 million.

Part of the \$550 million supported research in the laboratories on the Bethesda campus, where the staff grew from 3,800 to more than 10,000 during the Eisenhower years. But the bulk of the money, including mounting sums to train new researchers and construct labs, was awarded to laboratories in universities and hospitals around the country. NIH thus created thousands of new claimants for NIH grants, along with modern facilities where they could conduct research after they got the grants. And so it went during the golden age of biomedical expansion, nostalgically recalled today by scientists and administrators. It is also looked upon by today's budget-obsessed politicians as a horrendous episode that must not be duplicated.

M

ARY'S LITTLE LAMBS

The expansion of the health sciences in the 1950s and '60s was sustained by an upbeat economy and an ingenuous national faith in the healing powers of science. But there was also an impresario, with formidable political skills, high-level social connections, charm, energy, and money, to organize the proceedings: Mary Lasker, medical philanthropist, political strategist and financier, and agitator for ever more federal money for biomedical research. After World War II, she and her husband, Albert, who'd made a fortune in advertising, committed themselves to lobbying for a national health insurance system to make better medical treatment available to more people. "Socialized medicine," boomed the American Medical Association, then a great power in Washington. But the AMA tolerated federal money for medical research, which was less expensive than medical care and presumably politically neutral.

Illness put Albert on the sidelines, but Mary stuck to the promotion of medical research, accomplishing prodigious results by cultivating congressmen who mattered. In the House it was John Fogarty (D-R.I.), a former bricklayer who from 1949 through '60 chaired the subcommittee that handled the NIH budget. Fogarty held hearings at which he encouraged NIH bureaucrats to think aloud about what they would do with more money. His Senate counterpart, Lister Hill (D-Ala.), son of a physician, saw his own avid support of medical science as penance for having turned away from becoming a doctor because of an aversion to blood. The congressman and the senator were rivals—to see who could pump more money into NIH.

Attributing her obsession with health to her own sickly childhood, strokes that killed her parents, and the cancer death of a longtime family maid, Lasker was exasperated by the career government physicians and scientists responsible for medical research. In her view, they were timid and politically naïve. To expand their budgets and programs, Lasker, who lived in New York, developed a set of Washington cronies who came to be known as Mary's Little Lambs. Working with the lambs, she played the Washington social circuit to gain support for medical research, lined up witnesses for dramatic congressional hearings, and glorified friendly legislators. In 1959 the Albert and Mary Lasker Foundation bestowed special awards on Fogarty and Hill "for their unique and pre-eminent contributions to the public health and medical research through their inspired leadership in the Congress of the United States."

Lasker's suggestions that civil servants at NIH were more interested in



Mary Lasker

science than sickness produced an arms-length relationship between her and James Shannon, the director of NIH in the late 1950s and '60s. Shannon welcomed the money Lasker provided, but as a pioneer in the development of anti-malarial drugs, he felt he didn't require her tutoring on medical science or administration. As one of the architects of postwar biomedical research policy, he had cultivated basic research—initiated and judged by basic scientists—as the sacred mission of NIH. Disease could be conquered only through an understanding of its biological mechanisms, Shannon patiently told inquiring congressmen.

Lasker didn't dispute the value of basic research. But she contended that NIH failed to apply the results with the same intensity that it encouraged the research. In 1966, to the pained astonishment of NIH, Lasker's long friendship with Lyndon and Lady Bird Johnson yielded a presidential expression of concern that "too much energy was being spent on basic research and not enough on translating laboratory findings into tangible benefits for the American people."

Though in spirit aligned with the Democrats, Lasker provided campaign funds for friendly legislators of both parties. Meanwhile, the Lasker Foundation catered to scientists' yen for glory with the annual Albert Lasker Awards in Medical Research, which have been given with stunning prescience to future Nobel laureates—42 of the more than 200 Lasker award recipients later having received the grand prize.

The Lasker lobbying technique was epitomized in an episode described in *Politics, Science, & Dread Disease* by Stephen Strickland. Fed up with repeated congressional busting of the NIH budget, Eisenhower was threatening a veto of the health appropriations bill for 1961. Lasker responded quickly; working through one of Ike's golfing partners, she arranged a meeting between the President and Dr. Sidney Farber, a Harvard cancer researcher, Lasker collaborator, and star performer at congressional hearings. Farber reminded Eisenhower that he'd been given all he needed for the Normandy invasion, and pleaded for the same generosity for medical research. The veto never materialized.

There was no need for such meetings during the brief Kennedy administration, which instinctively embraced big spending on space and science as integral to the New Frontier. Kennedy asked for \$780 million for NIH for 1964; Congress voted \$880 million. The billion-dollar mark—inconceivable just a decade before—was within sight. It was attained in 1967, but by then it was clear that, with the Vietnam war diverting money and attention, the growth in the sums allocated for medical research was declining: President

Johnson requested \$1.1 billion for NIH and Congress added a trivial \$33 million.

In 1968 NIH's appropriation reached \$1.3 billion. At about the same time, the alliance that produced these sums fell apart. Fogarty died, Shannon retired from NIH, and Hill retired from the Senate. When Nixon took office in 1969, the budget still stood at \$1.3 billion.



John Fogarty

Lister Hill

A CALL TO WAR

After 15 years of soaring affluence, the leaders of American biomedical science were poorly conditioned for austerity. The community rang with alarms and doomsday prophecies. Lasker and her associates anxiously sought a dramatic means to reawaken the public's commitment to the eradication of disease. Their decision: maneuver the government into declaring war on cancer. It wasn't the biggest killer—heart disease was on the top of that list—nor was it scientifically ripe for developing new treatments. But public opinion polls confirmed common knowledge: cancer was by far the most feared disease.

In December 1969 a previously unheard of organization, the Citizens Committee for the Conquest of Cancer (address: 866 United Nations Plaza, N. Y., which also happened to be the address of Lasker's foundation), took out a full-page advertisement in the *New York Times*. Medically and scientifically, the ad was nonsense; politically, it was potent. Under the headline "Mr. Nixon: You Can Cure Cancer," the ad declared, "This year, Mr. President, you have it in your power to begin to end this curse." The text quoted Farber as saying "We are so close to a cure for cancer. We lack only the will and the kind of money and comprehensive planning that went into putting a man on the moon"—the intoxicating high-tech spectacular that had first occurred only five months previously. The ad went on to ask "Why don't we try to conquer cancer by America's 200th birthday?" And to plead "We must, under your leadership, put our hands together and get this thing done."

Lasker had also been at work in the Senate, where Hill's successor as labor and welfare chairman, a liberal Democrat from Texas named Ralph Yarborough, agreed to her suggestion to create an outside panel of experts and laymen to advise his committee on how to mobilize against cancer. The result was the National Panel of Consultants on the Conquest of Cancer, hand-picked by Lasker and her lambs. The 26 members represented wealth and accomplishment. Their selection was determined less by considerations of the disease of cancer than of the politics of cancer. In sum, Lasker and her allies were determined to thwart Nixon's plan to break the tradition of congressional largesse when it came to medical science.

Among the members of the panel was one of Nixon's most intimate friends and most valued advisers, Elmer Bobst, a millionaire pharmaceutical executive and elderly father figure who had counseled Nixon through many political crises. Years before, Bobst had collaborated with Lasker in stirring up the sleepy American Cancer Society and making it into the big money-raising organization it has been ever since.

One of the experts on the panel—which included no representatives from NIH headquarters or from NCI—was Solomon Garb, a clinical pharmacologist and author of the 1968 book *Cure for Can-*

cer: *A National Goal*, the theme of which harmonized with Lasker's thinking. A cancer cure can be rapidly achieved, he'd written, if it's made "a national goal, in the same way that putting a man into orbit around the earth was made a national goal, and then achieved."

In December 1970, eight months after it was established, the panel made its report. Taking its cue from the free-standing National Aeronautics and Space Administration (NASA), it recommended that NCI be extracted from NIH and reconstituted as an independent National Cancer Authority. The new authority should be headed by a presidential appointee, and the cancer-research budget—then \$230 million a year—should be raised to between \$800 million and \$1 billion a year within five years.

To many biomedical researchers, the proposal was nothing less than appalling. Regardless of the congressionally inspired labels on its institutes, NIH functioned as a unified, harmonious explorer of fundamental biological processes, with basic research as its main cause.

In conducting research and awarding money for doing it, the spirit of Bethesda was collegial and rigorously professional. A cumbersome but intellectually pure and politically clean peer-review system screened all grant applications. The system's scientific excellence has been confirmed by the fact that NIH supported the research of more than 50 of the 80 American scientists who have won Nobel prizes for chemistry and medicine or physiology since 1945.

NIH was unique in the federal establishment. Its directorship had so little power that it was "like the presidency of Switzerland," says Donald Fredrickson, who concluded a long and distinguished career at NIH in 1981 after five years as director. In another European analogy, Fredrickson likens the institutes of NIH to the palaces and cathedrals of Venice—tall and separate, but connected by a single canal system. The proposed reorganization would shatter that cohesion by removing NCI, the largest member of the NIH family, and setting it up as a privileged entity.

Furthermore, cancer research didn't rank high in the intellectual pecking order of science. Science, as Sir Peter Medawar has observed, is "the art of the soluble." But cancer was so intractable, and scientific progress so lacking, that many outside the field considered cancer research akin to alchemy or mind-reading. They viewed with particular disdain NCI's cancer chemotherapy screening program, in which researchers dreamed up new chemicals and scoured the world for natural substances—mud, leaves, fungi, sea life, anything—that might kill cancer cells. The materials were applied to mouse tumors. Altogether, some 400,000 substances were tested, from which eight drugs were derived—none of them the hoped-for magic bullet. Fredrickson says that the search was "driven by a frantic thought that somewhere in some South American jungle was the answer."

At first the Nixon White House, preoccupied with the Vietnam War, displayed no interest in the machinations of an obscure committee linked to a Democratic society figure. Moreover, Nixon's budget planners were seeking to cut NIH's funds for training new scientists. If there wasn't enough money to provide grants for the present corps of applicants, they asked, why train more? Besides, Yarborough, patron of the cancer inquiry, had been defeated earlier that year in the Texas senatorial primary, and Congress was in the homestretch for adjournment when the panel's report was delivered.



To outflank
Kennedy,
Nixon
signed the
cancer act.



DEAR ANN LANDERS

The White House, however, quickly found cause to pay close attention to cancer after Congress reconvened in January 1971, for Ted Kennedy emerged as chairman of the health subcommittee. Though politically devastated by the events at Chappaquiddick in 1969, he couldn't be ruled out as Nixon's 1972 re-election opponent. Furthermore, the Kennedys had long been associated with health issues and with Lasker. Two months after Chappaquiddick, Kennedy gave the first major address of his political recuperation, at a testimonial dinner for Farber.

In 1970, Nixon had carried out his threats against runaway domestic spending by vetoing a bill that, among other increases, raised the NIH budget \$64 million above his request. The veto had cost NCI \$21 million. But one year later Nixon stepped out as the champion of cancer research. His 1971 State of the Union message, though filled with urgings for economy in government, called for "an extra \$100 million to launch an intensive campaign to find a cure for cancer," and he promised that "I will ask later for whatever additional funds can effectively be used." Picking up the theme incessantly propounded by the Laskerites, Nixon declared, "The time has come in America when the same kind of concentrated effort that split the atom and took man to the moon should be turned toward conquering this dread disease. Let us make a total national commitment." Asked to account for his sudden interest in cancer, Nixon told reporters that his favorite aunt, Elizabeth, had died of the disease at the age of 38.

Lasker had triumphed again, this time by having the fatherly Bobst visit Nixon and suggest a presidential pre-emption of the cancer issue. But she still wanted to yank cancer research out of the NIH complex and expand its budget manyfold—as a spur to even broader investment in health science.

NIH and its friends welcomed the promise of more money—but what about the proposed dismemberment of the great research complex? Nixon's message hadn't mentioned that issue, but his science adviser, Edward David, an electrical engineer who was an alumnus of another renowned multi-science research complex, Bell Labs, dug in against the folly of separating cancer research from NIH or expecting a swift victory against the disease. The A-bomb and the moon landings, David explained, were underpinned by fundamental scientific understandings that were still lacking for cancer. Isolation from the main body of biomedical research would impede cancer research. "We do not believe in an AEC or NASA for cancer," he said. Physician Carl Baker, who had been appointed director of the NCI, said additional money could be well used—but within the present organization.

From retirement, Shannon vented his contempt on the politically wily intruders and their militant-sounding Conquest of Cancer bill. Warning that the legislation would bring biomedical anarchy, Shannon declaimed against policy making "by uncritical zealots,

by experts in advertising and public relations, and by rapacious empire builders."

Three months after Nixon's State of the Union message, the bill was politically becalmed as arguments pro and con were presented to Kennedy's subcommittee. Then occurred a bizarre event that is still legendary on Capitol Hill. Ann Landers wrote a column that cautioned, "If you are looking for a laugh today, you had better skip Ann Landers." The message was direct and simple: cancer was on the rampage, killing more Americans each year than died in World War II and fatally striking "more children under 15 years of age than any other illness." A NASA-style plan to defeat cancer was languishing in the Senate. Write your senators, Landers urged.

As recounted in Richard Rettig's *Cancer Crusade*, Senator Alan Cranston (D-Calif.) received 60,000 letters in five weeks. Charles Percy (R-Ill.) said the deluge was unmatched on any issue. "The mail produced a nightmarish problem in Senate offices as they struggled to answer the flood," Rettig wrote. The Senate's typewriter pounders found solace in IMPEACH ANN LANDERS signs.

Confronted by the unfamiliar phenomenon of disagreement among the leaders of medicine and science, the Senate split the difference. It voted to establish the National Cancer Authority as an independent, separately budgeted entity within NIH. But the House, led by a skeptical subcommittee chairman, Paul Rogers (D-Fla.), wanted to put less strain on the NIH organization. In its version, NCI would remain a much less independent part of NIH, but, like NASA, would send its budget request direct to the White House, bypassing the NIH administration. The House version also equipped NCI with a unique, anti-bureaucratic weapon: if it encountered managerial or political obstacles, it could turn to a special link to the White House, the President's cancer panel.

Urged on by Nixon, who wanted a bill-signing ceremony before Christmas, the Senate essentially accepted the House version. On Dec. 23, 1971, before more than 100 guests in the State Dining Room of the White House, Nixon signed the National Cancer Act of 1971. The legislation, he said, made it possible for him "to take personal command of the federal effort to conquer cancer." Nixon handed Benno Schmidt, a New York financier and a prominent long-time advocate of cancer research, the first pen used in the signing ceremony, and announced that he would chair the cancer panel. "Nixon told me, 'I want it to work,'" Schmidt says, "and no president has ever told anybody that since."



HE BATTLE BEGINS

Federal money promptly began pouring into NCI apace with the \$800 million-in-five-years schedule Yarborough's panel had recommended. Baker was rewarded for his defense of the organizational status quo by being kicked upstairs. He was succeeded as NCI director by a 40-year-old virologist, Frank Rauscher—one of



Letters prompted by Landers's column swamped Senate typists.

the few non-physicians to head an NIH institute. A well regarded scientist, but with neither the managerial experience nor the leadership style to prosecute the "war," Rauscher shared in the surprise at his appointment. Some months earlier, he'd chatted briefly with Nixon during a grandstanding presidential visit to a biological warfare laboratory that was to be converted to cancer research. He was later told that Nixon had inquired about him during the helicopter ride back to Washington.

Rauscher had been steeped in NIH's culture of biological holism. "I was concerned that NCI would lose close identity with NIH," he says. The key issue was the provision that permitted him to send his budget request direct to the White House. That, he recalls, "scared hell out of NIH," which feared that austerity-minded politicians would favor the celebrated war on cancer at the expense of important research that lacked public appeal. "My concern was that we might be getting too big a piece of the pie," Rauscher says.

In collegial fashion, the budgetary imbalance on the NIH campus was partly countered through the metaphorical Venetian canals that connected the member institutes. "We took some NCI money and put it in cancer-related research in other institutes," Rauscher says.

In the time remaining before the administration became preoccupied with Watergate, cancer research basked in presidential attention unmatched before or since. "Nixon was very interested in the program," Rauscher says. "About once a month, he'd give me five or ten minutes. He asked if we had enough resources. He was interested in survival statistics and the availability of treatment for children. He also wanted to know if congressmen were pressuring for cancer centers in their districts. We could have asked for more. But we were growing. We were getting as much as we could handle." Others soon concluded, however, that NCI had been given more than it could handle.

SOUND THE RETREAT

Nixon had listened to the pragmatic Schmidt and Rauscher and knew that the war would be a long one. But the Lasker campaign had been built on the theme of imminent victory. However, there was little understanding of the origins of cancer, the biological processes by which it proceeded, how to interfere with the disease—apart from the standard techniques of cut, burn, and poison—nor where and how to look into these lethal mysteries.

NCI and the American Cancer Society showered the public with reports of scientific breakthroughs and encouraging interpretations of murky statistics on incidence, survival, and mortality. But the official death toll showed that year after year, as Americans eluded other killer diseases and grew older, more of them were dying of cancer.

Some respected biostatisticians called the claims of improved survival rates statistically suspect. Emphasis on early diagnosis, they contended, was finding the disease earlier, and therefore starting the clock earlier on the standard determination that a patient who survived five years after first being diagnosed as having cancer was cured. But deaths were occurring at approximately the same rate, which suggested that treatments were no better.

Aware of the impossibility of finding the cure the Laskerites had promised, the managers of NCI sought opportunities for more modest progress. The gusher of new money financed rapid expansion of a previously low-keyed quest for a cancer virus, which in turn might lead to the magic bullet of a cancer vaccine. University scientists were appalled to find that most of the virus money was being dished out to industrial firms, without peer review. An outside inquiry concluded that the virus program, which would soon cost \$100 million a year, was intellectually shoddy and unproductive.

It was reorganized to emphasize research by NCI scientists and peer-reviewed university researchers, and became one of the prime movers of the molecular biology revolution. A decade later this research paid off with a speedy identification of the AIDS virus. But the early stumblings of the virus program were duly noted. Representative David Obey (D-Wis.) wondered why, when the experts said that most cancers were environmental in origin, NCI paid little attention to the environment. Senator George McGovern (D-S.D.) became curious about the neglect of nutrition as a cause of cancer.

In 1975, shortly after stepping down as the senior health official in the Department of Health, Education, and Welfare (HEW), Charles Edwards, a doctor and research administrator, wrote that the cancer program was based "on the politically attractive but scientifically dubious premise that a dread and enigmatic disease can, like the surface of the moon, be conquered if we will simply spend enough money."

NIH's supporters in Congress tried to assert that, despite these criticisms, the enterprise was working well. But an episode in 1976

suggested that NIH's congressional friends weren't really paying attention. Hill's successor in the Senate appropriations spot, Warren Magnuson (D-Wash.), contended that NCI would require even more money. Magnuson's reputation as an authority on cancer legislation was rooted in ancient congressional history; in 1937, as a member of the House, he'd introduced a bill that helped found NCI. However, he had difficulty coping with his duties, since he was often late or absent. When colleagues tired of filling in for the chairman, a devoted staffer, Harley Dirks, staged a phantom NIH budget review. Requesting written statements, rather than personal appearances, from the usual lineup of witnesses, he assembled a 700-page "hearing" report, replete with the banter common at such sessions. The text, for example, has the absent Magnuson quipping "That's a mouthful," in greeting the head of NIH's Institute of Neurological and Communicative Disorders and Strokes. The truth behind the bogus hearing was leaked, and Dirks eventually resigned to become a medical lobbyist.

On the diagnostic front, NCI quickly acceded when the American Cancer Society sought \$45 million for a nationwide screening program aimed at demonstrating the feasibility and lifesaving value



Warren Magnuson

of early detection of breast cancer through x-rays and other techniques. John Bailar, a physician and statistics expert who was then NCI's deputy associate director for cancer control, protested that the project was poorly conceived to yield reliable scientific information. Furthermore, the plan for the mass screening, eventually involving 280,000 women, seemed to disregard findings that diagnostic benefits were outweighed by radiation risks to women under 50. But the Cancer Society,

which had become the biggest of all health charities by skillfully promoting fear and hope—"a checkup and a check"—was well connected to NCI through Lasker and her lambs.

Kenneth Olson, the chief of the diagnosis branch in NCI's division of cancer biology and diagnosis, defended the limited objectives of "this ongoing program." Another defense was offered by Nathaniel Berlin, a physician who directed the division of cancer biology and diagnosis. NCI and the Cancer Society, he said, "will gain a great deal of favorable publicity [which] will assist in obtaining more research funds for basic and clinical research."

After reviewing the findings of the screening project, NCI recommended against routine breast x-rays for women under 50. This episode hardly served to promote the idea that the war on cancer was being fought effectively.

In 1976, Rauscher, a father of five, quit—his salary had held steady at about \$37,800 a year because of a government-wide salary freeze—and the newly elected Carter administration turned to a physician-environmentalist, Arthur Upton of the State University of New York at Stony Brook, to lead the plodding war on cancer. The new commander-in-chief, a respected but non-combative man, candidly said, "We've been simplistic, I feel, in our notions about cancer. I think we're wrong to expect a cure to come soon, in the foreseeable future." Upton added, "It's evident to me that [Congress's] attitude is changing. The honeymoon is over." Donald Kennedy, a distinguished biologist who headed the Food and Drug Administration, publicly called the cancer program "a medical

Vietnam." Champions of other diseases complained that cancer's share of the NIH budget had risen from 19 per cent in 1971 to 34 per cent in 1976. Schmidt, who had become the political battler for NCI, responded that, even so, there was more for all, because the cancer thrust had brought budget-boosting attention to all of NIH—raising its budget by \$1 billion during those five years.

Taking up the popular subject of the relationship between nutrition and cancer, McGovern asked Upton in 1978 about NCI's spending plans in that area. Upton said that by 1981 NCI planned to devote \$12 million to nutrition studies. McGovern countered that just a few years earlier the projected 1981 budget for diet and cancer had been \$31 million: "We are having great difficulty, frankly, Dr. Upton, finding out what your budget is. Why, for example, have we had three different budgetary estimates from the National Cancer Institute as to what you spent on nutrition in 1977?"

Upton, never comfortable in the congressional witness chair, suggested that the confusion was probably semantic. But another explanation was offered by the dean of Cornell's Medical College, Theodore Cooper, a former director of the NIH Heart and Lung Institute: "I think there's a tendency in all programs reported to have a lot of double reporting so the numbers look greater. Sometimes this is an advantage if the administration is trying to present an appearance of doing a lot in an area."

Self-confident and testy HEW Secretary Joseph Califano, whose department oversaw NIH, railed against runaway health spending and argued that an assault on cigarette smoking would cut the cancer toll far more than additional billions for cancer research.

With no successes to point to, the war on cancer was disintegrating politically when Upton stepped down in December 1979. He was succeeded by DeVita, a doctor from the cancer wards—"a very strong cancer soldier," as Fredrickson puts it.

THE CANCER SOLDIER

Like Montgomery taking over the British forces at El Alamein, DeVita seemed energized by adversity. An NCI staff member for 17 years, he'd come up through the clinical program of the institute and in 1972 had won a Lasker Award for his work on Hodgkin's disease. DeVita had logged long hours at the NIH Clinical Center not only as a doctor but also as the father of a fatally ill child.

In 1972, DeVita's son, Ted, age nine, had been diagnosed as having aplastic anemia, a bone marrow disorder that DeVita coincidentally had been studying at that time. The disease leaves its victims defenseless against normally survivable infections, but spontaneous remissions sometimes occur in patients who survive the first six months. The boy was given massive blood transfusions and placed in a small, germ-free room at the cancer center. He survived past the crucial six-month mark, but there was no remission. For



For years DeVita's ill son lived in a germ-free chamber at NCI.

eight years he remained confined in his life-preserving chamber. DeVita daily made the rounds of his patients and then spent evenings with his son. Ted died at 17, in May 1980, five months after DeVita's appointment as director.

The budget that came with the job had inched up to a record \$1 billion, but with inflation hovering around the ten per cent mark, the cancer institute's resources were stretched thin. Amid howls from some of NCI's old retainers, DeVita pruned \$90 million from what he euphemistically referred to as "mature projects." Cancelled was a flock of industrial contracts left over from the fruitless quest for new cancer drugs. Money was redirected from studies of cancers of particular organs of the body to fundamental research into molecular processes. And, contrary to what might have been expected from a director who came from the treatment wing of the cancer establishment, DeVita infused money and respectability into the neglected subject of diet and cancer. NCI began designing studies aimed at determining whether low-fat diets would reduce cancer, and on the relationship between high-fiber diets and lower incidence of colon cancer.

For 20 years epidemiologists and nutritionists had urged the cancer institute to explore the relationship between diet and cancer. However, the culture of NIH defined science as existing somewhere between the molecule and the cell. Two years ago DeVita acknowledged at a congressional hearing that "we can be criticized for not having done it sooner." To mixed reviews among medical traditionalists, NCI began distributing a few million booklets recommending low-fat, high-fiber, and leafy-green diets. DeVita and his team confidently argue that, while the case isn't proved, accumulating evidence suggests powerful anti-carcinogenic value in such diets. The emphasis on diet and prevention has been accompanied by the near-disappearance of the National Cancer Program's ferocious symbol—a sword-wielding Herculean figure in mortal combat with the ancient symbol of cancer, the crab.

Disdainful of the defeatist mood that had taken root in the cancer establishment as the war settled into grind-it-out combat, DeVita is a tireless cheerleader. He insists that treatments at the top cancer centers have produced markedly improved survival rates that reflect more than just early detection; the task now is to keep up the scientific and medical momentum while spreading the improved treatment techniques throughout the country. He told Congress recently, "We estimate about forty thousand lives could be saved by applying state-of-the-art treatment methods." For this purpose NCI has inaugurated a computerized information system to provide doctors with the latest diagnostic and treatment infor-

mation. Even more lives could be saved, DeVita said, by including more patients in the carefully supervised clinical trials that the cancer institute sponsors in hospitals nationwide. "Acute or mild leukemia in adults is a good example," he says. "You've got to work at it, you've got to have a specialized group, specialized support systems. It's not a disease to be treated in private practice." But there's no money in the budget to enroll more patients.

Under DeVita's orchestration, the research, prevention, and treatment programs have been bundled together in an audacious—some say preposterous—plan aimed at a 50 per cent reduction in cancer mortality by the end of the century. DeVita's hand-picked leader for this effort, epidemiologist Peter Greenwald, says, "Vince brought me in because he sensed that the time had come for a strong prevention program." Calculating the downward trend in smoking, plus improved treatments and the hoped-for effects of dietary change, Greenwald says the goal is "ambitious but achievable."

DeVita's revamping of NCI has gone largely unnoticed by the public and the politicians. The budget bypass provision of 1971 remains on the books, but it's ignored; the cancer budget is packed along with the rest of the budget that NIH submits to the Department of Health and Human Services, which then submits it to OMB.

By 1982, with the cancer budget at \$1 billion, the level it had attained in 1980, DeVita said, "We've saved labs from closing, but they're not running at the same speed"—a lament heard throughout the NIH complex. In 1984, with the budget still virtually unchanged, Congress boosted it to \$1.2 billion for 1985, as part of a general increase for biomedical research. The White House tried unsuccessfully to block the spending of most of the additional sum. The cancer institute now provides support for only about 30 per cent of the research projects that its scientific reviewers grade as important.

Nonetheless, DeVita says, the scientific payoff has been fabulous: "The difference between our understanding of cancer now and in 1971 is the difference between a black box and a blueprint. We will eventually unravel the blueprint and understand why a cancer cell becomes a cancer cell. In 1971, they would have put me in the booby hatch for saying that. The trouble is that people have a hard time envisioning a world without cancer. With my understanding of cancer, I've no doubt it will come."

CANCER'S NEW POLITICS

The old congressional rhetoric of esteem and largesse still fills the hearing room when the managers of biomedical research make their annual presentations on Capitol Hill. Representative William Natcher (D-Ky.) now occupies the subcommittee chairmanship held by Fogarty—after whom a conference center on the NIH campus has been named. With DeVita in the witness chair, Natcher proclaims, "As far as the people in this country are concerned, Doc-

tor, if it required another \$1 billion over and above your request of \$1.101 billion, I don't know anyone who would seriously object, moneywise."

DeVita politely declines the bait. Congress still adds to the president's NIH budget, which regularly comes in low in anticipation of congressional generosity. But the days of budget busting on a grand scale are over—and everyone in the game knows it. The most obvious cause of change is the radically revised budgeting process that Congress adopted in the mid-1970s. Rather than spending and later adding up the totals, as they did in the past, both chambers must agree beforehand on a total figure and then shape and shave particular agency budgets to stay within the ceiling. "The go-go days of NIH were over a long time ago," says Henry Neil, a veteran House staff man. "You have a specific pot of money and NIH is competing with the rest of the health programs, and even with education and labor. In a sense, it's competing with every other program in the federal government." And with passage in December of deficit-reduction legislation, with its provision for automatic cuts if the President and Congress don't keep the deficit within declining limits over the next five years, NCI faces far stiffer competition.

Just how much it stands to lose isn't easy to predict. The Reagan administration has been uncharacteristically indecisive about NIH. It hasn't slashed or boosted NIH spending, nor has it loaded Bethesda's ruling ranks with the biomedical counterparts of James Watt or Rita Lavelle.

When Fredrickson voluntarily stepped down as NIH director in 1981, the White House filled the job with his first choice, an old colleague, James Wyngaarden, a physician who had been chairman of the department of medicine at Duke. In 1982 several scientists complained that as terms on the presidentially appointed National Cancer Advisory Board expired, distinguished scientists were being replaced by medical hacks with political connections. David Korn, a pathologist who's now the dean of the Stanford medical school, thought so, too, and wrote an angry letter to the White House. Not long afterward he was appointed chairman of the cancer board. Appointments of a similarly high caliber followed, leading the independently published *Cancer Letter*, the bible of the cancer "industry," to comment, "There should be nothing but praise for President Reagan on this round of appointments."

Before he resigned in December, Keyworth had repeatedly assured NIH that austerity was beneficial for science, and urged it to direct some money and attention to another area—the biotechnology industry, which evolved from NIH's huge investments in basic molecular biology research. NIH, said Keyworth, should join the rest of the government in supporting the rejuvenation of American industry by stepping beyond its traditional concern with basic research. The response to this from the old Bethesda-Capitol Hill axis has been cool. Congress likes NIH as it is.

Meanwhile, Armand Hammer persists in his campaign to intensify the war on cancer: "We've got to get to the President and tell him that if we were at war and losing 450,000 people a year, this country would be up in arms about it. We'd be spending billions to get this war over, to stop the slaughter of innocent people."

DeVita, the seasoned soldier of the cancer wards and cancer politics, welcomes and encourages Hammer's enthusiasm. But he knows that neither politics nor the biomedical establishment would tolerate a repetition of the emotion-filled drive that led the U.S. government to declare war on cancer. □